REMARKS/ARGUMENTS

Claims 1, 2, and 7 are pending. No new matter has been introduced. Favorable consideration of this amendment is now respectfully requested.

The Applicants thank Examiner Kuhns for the helpful and courteous interview of September 14, 2005 and respectfully request a copy of the Examiner's interview summary, but provide their own summary below. To address the rejection of the product by process claims, it was suggested that the Applicants point out some physical or functional difference between prior art products, such as roe produced using conventional methods, and the products of the invention.

With respect to the process claims, one concern was that the method might read on a conventional method of catching a fish from sea water, rinsing it with water, and then removing its internal organs. Another was that the step of keeping the fish alive in an aqueous alkali solution of pH 8.5-13.0 would have been obvious based on Kaneyasu.

The Examiners indicated that the combination of art cited would render the invention as presently claimed obvious, on the grounds that Kaneyasu suggested keeping living fish in an aqueous alkali solution, Bedford suggested using alkali compounds, such as sodium carbonate, to kill bacteria and preserve fish tissues, and that Highfill and Bender disclosed treatment of living fish.

The issue of whether Kaneyasu was non-analogous art was discussed. The Applicants pointed out that this reference is directed to improving water quality for aquatic animals by adding a pH regulator and it does not disclose the step of raising the pH of water to pH 8.5-13.0 as required by the invention.

Rejection - 35 U.S.C. § 102

Claims 8, 9 and 14-16 were rejected under 35 U.S.C. §102 as being anticipated by Yip, U.S. Patent No. 3,852,489. This rejection is moot in view of the cancellation of these claims.

Rejection - 35 U.S.C. § 103

Claims 1, 2 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaneyasu et al., JP 09271786 A, in view of Highfill, U.S. Patent No. 4,962,728 and Bender et al., U.S. Patent No. 5,262,186. Claims 1, 2 and 7 are process claims.

The Applicants respectfully traverse this rejection since the cited art does not disclose the combination of steps required by these claims, nor provide any suggestion or motivation for this combination of steps. Briefly, none of the prior art documents disclose or suggest keeping fish alive at a pH ranging from 8.5-13.0 or 9.5-12.0, nor suggest that such a process step would result in any benefit, such as reducing spoilage of organs or adnexa harvested from the fish kept alive within this pH range. As shown below, this pH range is above that of sea water and above that recommended for aquaculture.

Kaneyasu is non-analogous art, because it does not disclose any of the steps of the claimed process. This is evident from the English translation of portions of this document now provided (the rejection was based on an English abstract). Kaneyasu does not disclose or suggest the step of keeping fish alive in an aqueous alkaline solution of pH 8.5-13.0 or 9.5-12.0 as required by Claim 1, the step of rinsing or neutralizing fish kept alive in such an alkaline solution, or removing the internal organs or adnexa of fish. At best, Kaneyasu merely indicates that the pH of water in which fish live should be adjusted to the pH of seawater which is indicated on page 4, last few lines, as being pH 8.2.

Kaneyasu is directed to a method for improving water quality through use of a pH regulator having a particular particle size that slowly releases a pH regulator such as magnesium carbonate. In self-contained systems, such as in aquaculture, conventional pH regulators collapse and are discharged from the system due to water flow. Alternatively, conventional addition of alkaline agents results in pH extremes which are detrimental to aquaculture, see page 4, third paragraph. This paragraph teaches away from the present invention, since it indicates that a pH of 11-13 adversely affects the habitat or environment of fish.

There is no suggestion to increase the pH of water in which living fish are kept to be above the pH of sea water (pH 8.2). Also, based on the pH of seawater being pH 8.2 catching a fish from the ocean, rinsing it, and eviscerating it would not inherently read on the claimed method which requires living fish being kept in a higher pH solution. The Applicants note that the pH scale is logarithmic, thus pH 8.5 has an exponentially higher number of hydrogen ions than sea water at pH 8.2.

Kaneyasu is generally directed to maintaining the natural pH of sea water which is pH 8.2 (page 4, line 12). The pH 8.2 is outside the pH range of the claims, which require a minimum pH of 8.5 (Claim 1) or 9.5 (Claim7). The prior art method seeks to normalize lower pH's which can occur due to pollution or aquaculture by stably maintaining a pH which is the same as that of fresh sea water (page 4, first paragraph). Thus, Kaneyasu provides no suggestion or motivation for keeping fish alive at a pH range of 8.5-13.0 as required by Claim 1, or at pH 9.5-12.0 as required by Claim 7. Moreover, there is no suggestion in Kaneyasu for the other steps required by Claim 1, namely rinsing the fish and extracting their internal organs. Even if these steps were presumed to be implicitly suggested by Kaneyasu, there is neither suggestion to keep the fish alive at the elevated pH required by

the present invention prior to rinsing and removal of the organs nor any recognition of the benefits of such a process.

On the other hand, in the claimed method the live fish take up or swallow the alkaline solution so that the alkaline solution reaches up to the inside organs and adnexa of the fish, and destroys or inhibits the growth of germs in the internal organs and adnexa of the fish which ordinarily would lead to rapid rotting of these organs or adnexa after the death of the fish. The fresh organs are then removed from the live fish without spoilage or rotting caused by microorganisms after death of the fish.

Highfill, U. S. Patent No. 4,962,728 (D2), relates to a process for maintaining live fish as fish bait or in a live well by adding Kurrol's salt (col. 1, first paragraph). Claim 1 requires that the aqueous alkali solution contain alkalis other than Kurrol's salt. (Kurrol's salt is a potassium phosphate, $(KPO_3)_4$, with ion-exchange properties.)

Highfill does not disclose the step of keeping fish alive at pH of 8.5-13.0 (above that of seawater) and therefore cannot complement the disclosure of Kaneyasu. Highfill provides no suggestion or motivation to raise the pH of the water in which living fish are kept to be above that of seawater (pH 8.2). Moreover, Highfill does not disclose or suggest the other steps of the present invention, namely the rinsing of the fish to remove the higher pH alkaline solution or the removal of the internal organs or adnexa from the fresh fish.

Bender, et al., U.S. Patent No. 5,262,186 (D3), is also non-analogous art for the method claims since it pertains to preserving fish flesh, and not to a method of keeping fish alive in an aqueous solution and does not disclose or suggest the step of keeping fish alive at a pH ranging from 8.5-13.0 or 9.5-12.0 as required by the claims. This document relates to the treatment of raw fish flesh prepared from viscerated and often filleted fish. It is directed to the treatment of processed fish flesh which may have become contaminated with bacteria (col. 1, lines 15-20) during evisceration or filleting.

Bender is only directed to treatment of the fish flesh itself and does not relate to the treatment of an intact living fish in order to obtain fresh, unspoiled internal organs or adnexa from the live fish. For example, Bender states that the fish is treated with the solution, after the fish is eviscerated (e.g. column 3, lines 40-49; column 4, lines 4-6; and column 4, lines 65-68). Furthermore, especially with respect to claim 18, the invention of Bender differs as it also resides in the finding that among the various phosphates, a specific orthophosphate which is useful for retarding bacteria contamination on fish meat. This patent neither discloses nor suggests that the specific alkali solutions of claim 18 are also useful for this purpose. Accordingly, since Bender does not disclose or suggest treating live fish with an alkaline solution at a pH above that of sea water, washing and isolating the internal organs or adnexa in fresh form, nor the specific alkali solutions as required by the present claims.

Bedford was cited in the body of the rejection as teaching various alkaline compounds, such as some of those recited by Claim 1 to preserve the viscera of fish (page 1, col. 2, line 13 and page 2, col. 1, lines 13-17). However, there is no disclosure or suggestion for the steps of the present invention which require keeping live fish in an aqueous alkaline solution of pH 8.5 -13.0. The Applicants submit that Bedford is also non-analogous art for the method claims since it pertains to preserving fish viscera, and not to a method of keeping fish alive in an aqueous solution.

Accordingly, none of the cited prior art discloses or suggests the step of keeping fish alive in a aqueous alkaline solution of pH 8.5-13.0 or 9.5-12.0, nor combining this step with a rinsing step to remove the high pH solution, or extracting organs or adnexa from fish kept alive in such a high pH solution. Therefore, the Applicants respectfully request that this rejection be withdrawn as the cited prior art does not teach all the elements of the invention, suggest the combination of method steps of the present invention, nor provide a reasonable

expectation of success that such a method involving live fish would provide a superior process that permits organs to be removed without spoilage or rotting.

CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification to that effect is respectfully requested.

Respectfully submitted,

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